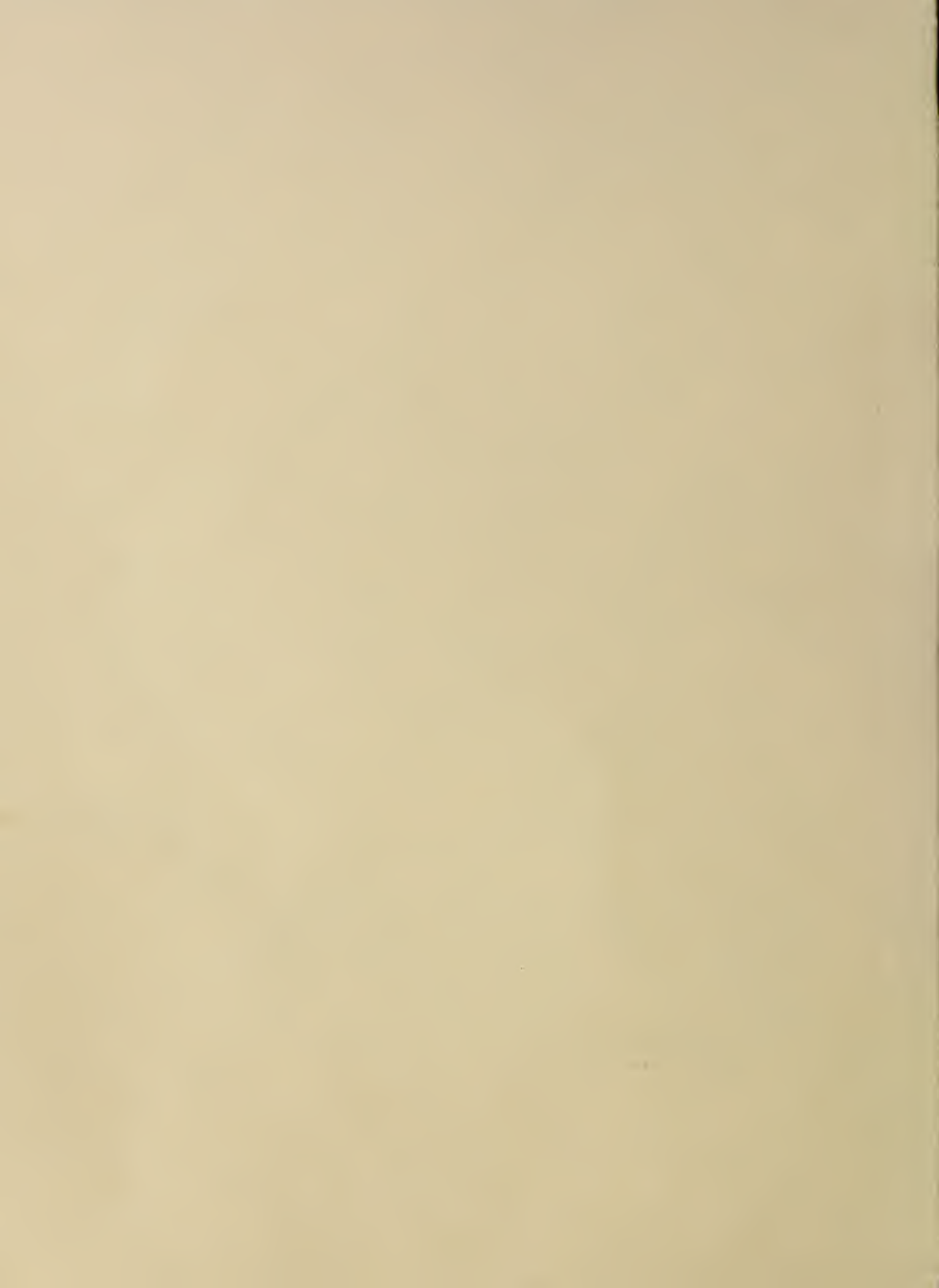


## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



serne  
292.9  
3Wat

# WATER SUPPLY OUTLOOK FOR IDAHO



U.S. DEPT. OF AGRICULTURE  
NATL. AGRIC. LIBRARY

MAR 23 '76

RECEIVED  
FEDERAL RECORDS

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

IDAHO STATE DEPARTMENT OF WATER ADMINISTRATION

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF  
MAR. 1, 1976

## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SURVEYOR ENROUTE TO THE MT. BALDY ARIZONA SNOW COURSE  
SCS PHOTO AZ-5460

### PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

### PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



# **WATER SUPPLY OUTLOOK FOR IDAHO**

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

*Issued by*

**R.M. DAVIS**  
ADMINISTRATOR  
SOIL CONSERVATION SERVICE  
WASHINGTON, D C

|||||

*Released by*

**AMOS I. GARRISON, JR.**  
STATE CONSERVATIONIST  
SOIL CONSERVATION SERVICE  
BOISE, IDAHO

*In Cooperation with*

**R. KEITH HIGGINSON**  
DIRECTOR  
IDAHO DEPARTMENT OF WATER RESOURCES

|||||

*Report prepared by*

**JACK A. WILSON, Snow Survey Supervisor**  
and  
**MARION O. CARSTENS, Statistical Assistant**

SOIL CONSERVATION SERVICE  
SNOW SURVEY SECTION  
ROOM 345, 304 N. 8th. ST.  
BOISE, IDAHO 83702



THE UNIVERSITY OF CHICAGO

1954

MADE

CHICAGO, ILLINOIS

# WATER SUPPLY OUTLOOK for IDAHO



## GENERAL SUMMARY FOR MARCH 1, 1976

In general, water supplies for irrigation and other purposes are forecast to be adequate for the 1976 runoff season. Some late season shortages might occur on streams without storage facilities and some smaller streams in the arid portions of the state. Streamflow forecasts range from a low of 64% of average for the Little Wood River drainage to a high of 120% of normal on the Teton watershed.

Stored water in the irrigation reservoirs is well above average and can be used to supplement the below to near normal runoff forecasts and fulfill irrigation demands.

In general the snowpack improved in relation to normal during February, however not significantly. Snow-water equivalent on the mountainous watersheds ranges from a low of 67% of average on the Big Lost and Little Wood Rivers to a high of 141% of normal on the Teton River drainage.

Streamflows continued above normal in most drainage basins in the state, however all streams remained below flood stage throughout the month.

Precipitation during February was heaviest across the southern and southeastern portions of the state. Widely scattered reporting points in the more mountainous regions of central Idaho show wide variability. Temperatures were generally near normal across the district through the month of February.

## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST <sup>c</sup>		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average <sup>+</sup>

## UPPER COLUMBIA BASIN

## KOOTENAI RIVER

Leonia	(at)	8900	98	Apr-Sep	8093	9073
		7900	99	Apr-Jul	6846	7957
		6350	99	Apr-Jun	5298	6431

## PEND OREILLE RIVER

## Clark Fork River

Whitehorse Rapids	(at)	15400	109	Apr-Sep	--	14336
		14100	110	Apr-Jul	--	13086
		11900	107	Apr-Jun	--	11325

## Priest River

Priest River <u>1/</u>	(nr)	700	80	Apr-Jul	--	879
------------------------	------	-----	----	---------	----	-----

## SPOKANE RIVER

Post Falls <u>2/</u>	(at)	3350	111	Apr-Sep	--	3008
----------------------	------	------	-----	---------	----	------

## St. Joe River

Calder	(at)	1480	110	Apr-Sep	--	1345
		1430	112	Apr-Jul	--	1277

## SNAKE RIVER BASIN

## SNAKE RIVER - MAIN STEM

Moran <u>3/</u>	(nr)	1080	126	Apr-Sep	938	858
Palisades Inflow <u>3/</u>		4450	121	Apr-Sep	4202	3714
Heise <u>4/</u>	(nr)	4700	119	Apr-Sep	4494	3946
Blackfoot <u>5/</u>	(nr)	5000	120	Apr-Jul	--	4173
Weiser	(at)	7050	108	Apr-Sep	--	6524

## Henrys Fork

Ashton <u>6/</u>	(nr)	775	115	Apr-Sep	--	671
Rexburg <u>7/</u>	(nr)	1610	118	Apr-Sep	--	1364

## Teton River

St. Anthony	(nr)	530	120	Apr-Sep	--	442
-------------	------	-----	-----	---------	----	-----

(c) Assuming normal meteorological conditions. 1/ Observed flow corrected for storage in Priest Lake.  
2/ Observed flow corrected for storage in Coeur d'Alene Lake 3/ Corrected for storage in Jackson Lake.  
4/ Corrected for storage in Jackson Lake and Palisades. 5/ Corrected for storage in Jackson Lake, Palisades, Island Park, Henry's Lake, Grassy Lake and diversions between Heise and Blackfoot. 6/ Corrected for storage in Henry's Lake and Island Park Reservoir. 7/ Corrected for storage in Henry's Lake, Island Park, Grassy Lake and diversions between Ashton and Rexburg.

+ 1958-1972 period.



A horizontal scale bar with markings at 20, 0, 20, 40, 60, 80, 100, and 120. Below the bar is the text "SCALE IN MILES".



## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT		THIS YEAR			PAST RECORD	
		FORECAST <sup>c</sup>		FORECAST PERIOD	THOUSAND ACRE FEET	
		Thousand Acre Feet	Percent of Average		Last Year	Average <sup>†</sup>
<u>Portneuf River</u>						
Topaz	(at)	105	113	Mar-Sep	--	93
<u>Oakley Reservoir Inflow</u>		31	106	Mar-Sep	--	29.5
<u>Salmon Falls Creek</u>						
San Jacinto	(nr)	85	101	Mar-Sep	--	84
		82	102	Mar-Jul	--	80
<u>Bruneau River</u>						
Hot Springs	(nr)	240	106	Mar-Sep	--	226
<u>Little Lost River</u>						
Howe	(nr)	35	85	Apr-Sep	--	41
<u>Big Lost River</u>						
Howell Ranch	(at)	150	72	Apr-Sep	--	208
Mackay <u>1/</u>	(nr)	124	68	Apr-Sep	--	183
<u>Big Wood River</u>						
Magic Reservoir		250	83	Apr-Sep	--	301
Inflow <u>2/</u>		260	84	Mar-Jul	--	310
<u>Little Wood River</u>						
High Five Creek	(ab)	60	64	Apr-Sep	--	94
<u>Boise River</u>						
Twin Springs	(nr)	830	115	Apr-Sep	--	720
		770	116	Apr-Jul	--	665
Boise <u>3/</u>	(nr)	1850	115	Apr-Sep	--	1612
<u>South Fork</u>						
Anderson Dam <u>4/</u>	(at)	690	114	Apr-Sep	--	603
<u>Owyhee River</u>						
Gold Cr., Nev. <u>5/</u>	(nr)	19	105	Apr-Jul	43	18
		24	104	Mar-Jul	--	23
Owyhee, Nev. <u>5/</u>	(nr)	69	101	Apr-Jul	144	68
		82	101	Mar-Jul	--	81
Lake Owyhee		328	99	Apr-Sep	917	332
net inflow <u>6/</u>		452	105	Mar-Jul	1072	431

(c) Assuming normal meteorological conditions. 1/ Observed flow corrected for storage in Mackay Reservoir  
2/ Combined flow Big Wood River nr. Bellevue and Camas Creek nr. Blaine. 3/ Corrected for storage in Arrow-  
 rock, Anderson Ranch and Lucky Peak. 4/ Corrected for storage in Anderson Ranch Reservoir. 5/ Corrected for  
 storage in Wild Horse Reservoir. 6/ From U.S.B.R. records of inflow.

<sup>†</sup> 1958-1972 period.

## STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT		THIS YEAR			PAST RECORD	
		FORECAST <sup>c</sup>		FORECAST PERIOD	THOUSAND ACRE FEET	
		Thousand Acre Feet	Percent of Average		Last Year	Average <sup>†</sup>
<u>Payette River</u>						
Horseshoe Bend <u>1/</u>	(nr)	2110	114	Apr-Sep	--	1850
<u>North Fork</u>						
Cascade <u>3/</u>	(at)	635	113	Apr-Sep	--	562
Banks <u>3/</u>	(nr)	830	114	Apr-Sep	--	730
<u>Weiser River</u>						
Weiser ab. Crane Creek <u>4/</u>		530	104	Mar-Sep	--	511
<u>Salmon River</u>						
Whitebird	(at)	7500	108	Apr-Sep	--	6959
<u>Clearwater River</u>						
Spalding	(at)	9900	115	Apr-Sep	--	8605

GREAT BASINBEAR RIVER

Harer	(at)	280	94	Apr-Sep	--	297
<u>Montpelier Creek</u>						
Montpelier	(nr)	14.5	117	Apr-Sep	--	12.4
<u>Cub River</u>						
Preston	(nr)	50	100	Apr-Sep	--	50.0

(c) Assuming normal meteorological conditions. 1/ Corrected for storage in Cascade and Dendwood Reservoirs. 2/ Corrected for storage in Deadwood Reservoir. 3/ Corrected for storage in Cascade Reservoir.  
 4 Observed flow of Weiser River nr. Weiser minus observed flow of Crane Creek at mouth. + 1958-1972 period.



## COMPARISON of SNOW COVER

RIVER BASIN WATERSHED	NO. OF COURSES AVERAGED	THIS YEARS SNOW WATER EXPRESSED AS PERCENT OF :	
		LAST YEAR	1958-72 AVERAGE
<u>UPPER COLUMBIA RIVER BASIN</u>			
Kootenai River	27	93	99
Pend Oreille River	78	102	107
Clark Fork River	49	106	115
Flathead River	29	97	97
Priest River	4	56	84
Spokane River	8	95	102
<u>LOWER SNAKE RIVER BASIN</u>			
Palouse River	5	86	135
Clearwater River	9	106	116
Salmon River	13	105	108
Lemhi River	5	135	125
<u>MIDDLE SNAKE RIVER BASIN - Northside</u>			
Little Lost River	5	92	81
Big Lost River	7	79	67
Fish Creek	2	85	93
Little Wood River	4	77	67
Big Wood River	10	89	86
Boise River	13	97	103
Payette River	12	98	110
Weiser River	2	86	97
Mann Creek	4	69	--
<u>MIDDLE SNAKE RIVER BASIN - Southside</u>			
Raft River	7	84	93
Goose-Trapper Creeks	3	99	108
Salmon Falls Creek	10	85	102
Bruneau River	5	83	109
Owyhee River	5	60	100
Jordan Creek	6	74	91
<u>UPPER SNAKE RIVER BASIN</u>			
Snake Basin - Wyoming	28	128	122
Camas-Beaver Creeks	2	70	84
Henrys Fork River	10-11	122	116
Teton River	2-11	133	141
Willow Creek	5-9	108	113
Blackfoot River	3-4	114	116
Portneuf River	4	99	120
<u>GREAT BASIN</u>			
Bear River	29	98	101
Montpelier Creek	4	103	104
Mink Creek	7	99	103
Cub River	2-3	100	136
Malad River	4-6	97	118

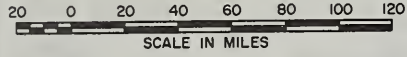


# SNOW WATER DEPTHS

As percent of 1958-72 15 year average

MARCH 1, 1976

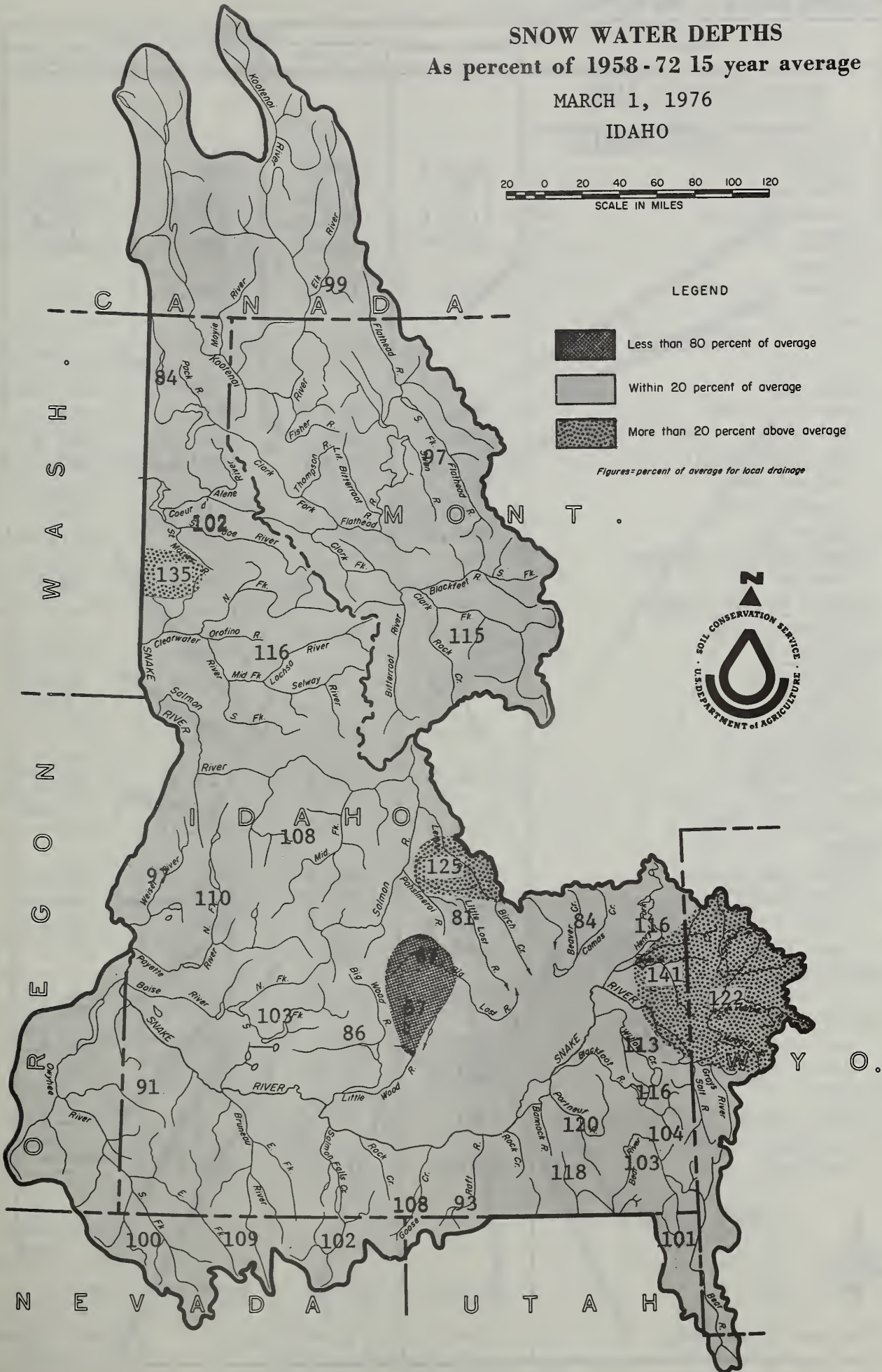
IDAHO



## LEGEND

- Less than 80 percent of average
- Within 20 percent of average
- More than 20 percent above average

Figures: percent of average for local drainage



## RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	1958-72 AVERAGE
UPPER COLUMBIA BASIN				
Clark Fork - Pend Oreille				
Hungry Horse	3428.0	2570.0	1912.0	2329.0
Flathead	1791.0	925.5	816.1	1009.0
Pend Oreille	1155.1	498.6	177.7	457.0
Noxon	334.6	261.8	309.7	300.6
Spokane				
Coeur d'Alene	225.1	130.0	58.9	162.3
SNAKE BASIN				
Snake				
Jackson Lake	847.0	633.2	624.4	533.3
Palisades	1200.0	904.5	966.3	809.0
American Falls	1125.0	963.9	1060.4	789.1
Island Park	127.0	98.5	115.7	113.5
Grassy Lake	15.2	11.0	10.9	10.3
Brownlee	980.2	487.4	502.2	451.1*
Goose-Trapper Creeks				
Oakley	74.4	47.5	44.2	19.3
Salmon Falls Creek				
Salmon Falls	182.6	111.8	62.9	34.5
Big Lost				
Mackay	44.2	28.2	27.8	31.9
Big Wood				
Magic	191.5	135.0	113.4	103.5
Little Wood				
Little Wood	30.0	20.5	15.2	15.5
Fish Creek				
Carey Valley	14.4	7.0	5.3	--
Boise				
Anderson Ranch	423.2	258.3	270.3	237.6
Arrowrock	286.6	273.5	279.9	247.9
Lucky Peak	278.2	67.3	101.6	89.2
Lake Lowell (Deer Flat)	169.0	142.5	116.8	132.0
Owyhee				
Owyhee	715.0	671.4	467.4	451.2
Payette				
Cascade	653.2	393.0	348.5	325.9
Deadwood	161.9	97.0	87.2	78.8
Weiser				
Mann Creek	11.1	6.2	3.8	--
Clearwater				
Dworshak	2016.0	512.5	436.1	--
GREAT BASIN				
Bear				
Bear Lake	1421.0	1049.4	1087.5	958.3
*Period of Record.				

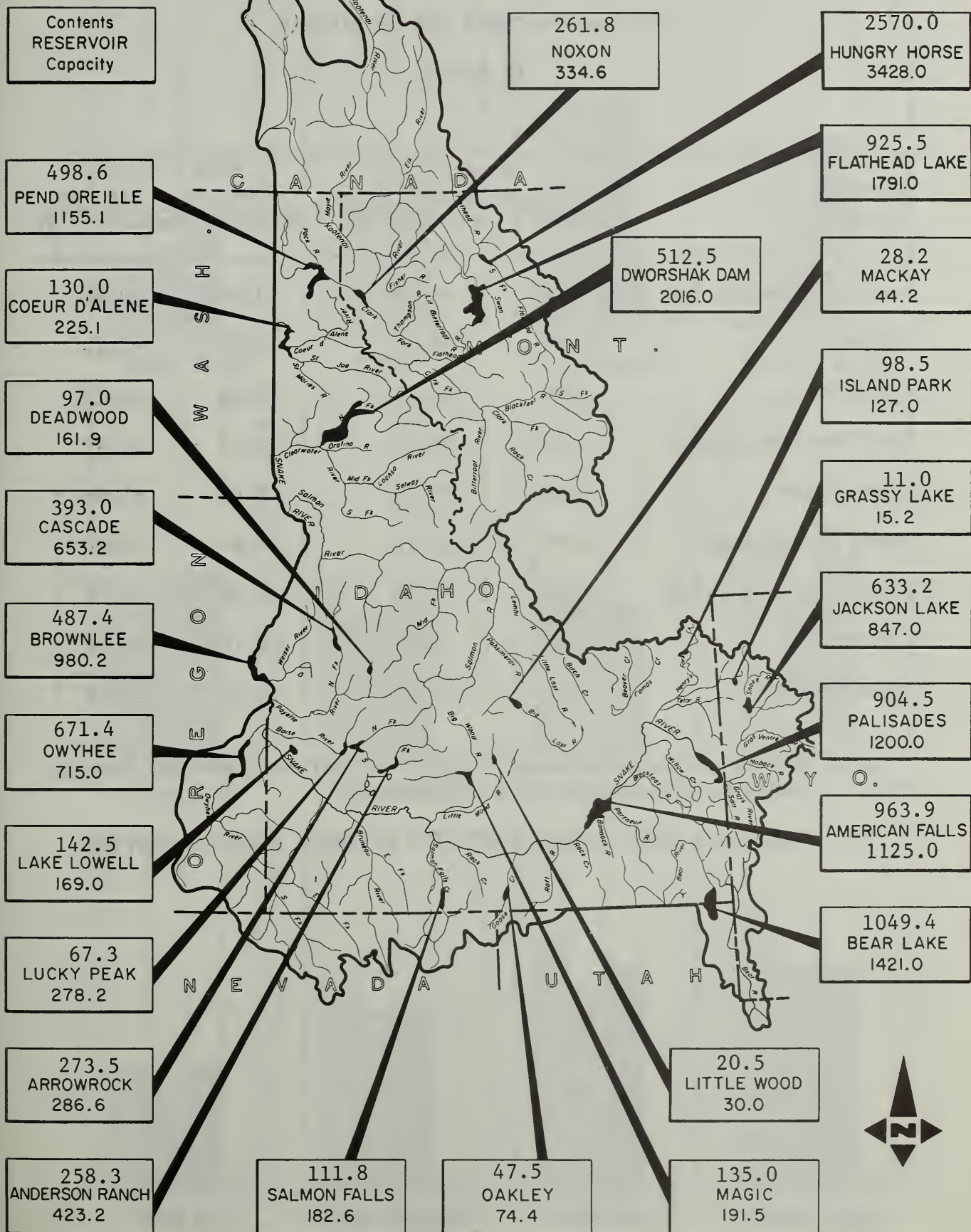


# RESERVOIR STORAGE

USABLE CONTENTS (1,000 Acre Feet)

March 1, 1976

50 0 50 100 150  
SCALE IN MILES



VALLEY PRECIPITATION 1/  
 Divison Averages and Departures  
 In Inches

DRAINAGE DIVISIONS	Winter February 1976		Fall - Winter Nov. 75 - Feb. 76	
	Observed	Departure <u>2/</u>	Observed	Departure <u>2/</u>
Kootenai, Canada & U.S.	3.00	+0.98	13.07	+0.80
Flathead	2.46	+0.66	8.33	-1.20
Clark Fork	0.94	+0.19	3.95	-0.25
Pend Oreille-Spokane	3.54	+0.46	15.52	-0.49
Upper Snake	2.61	+0.76	9.65	+1.06
Snake River Plain	0.95	+0.19	3.54	-0.60
Salmon-Payette-Boise	2.31	+0.48	9.86	-0.42
Clearwater	2.92	+0.43	15.74	+2.93
Owyhee-Malheur	1.02	+0.14	3.32	-1.45

1/ Preliminary analysis and data by the National Weather Service and Meterological Service of Canada.

2/ Departure from 15-year (1958-72) drainage division average.

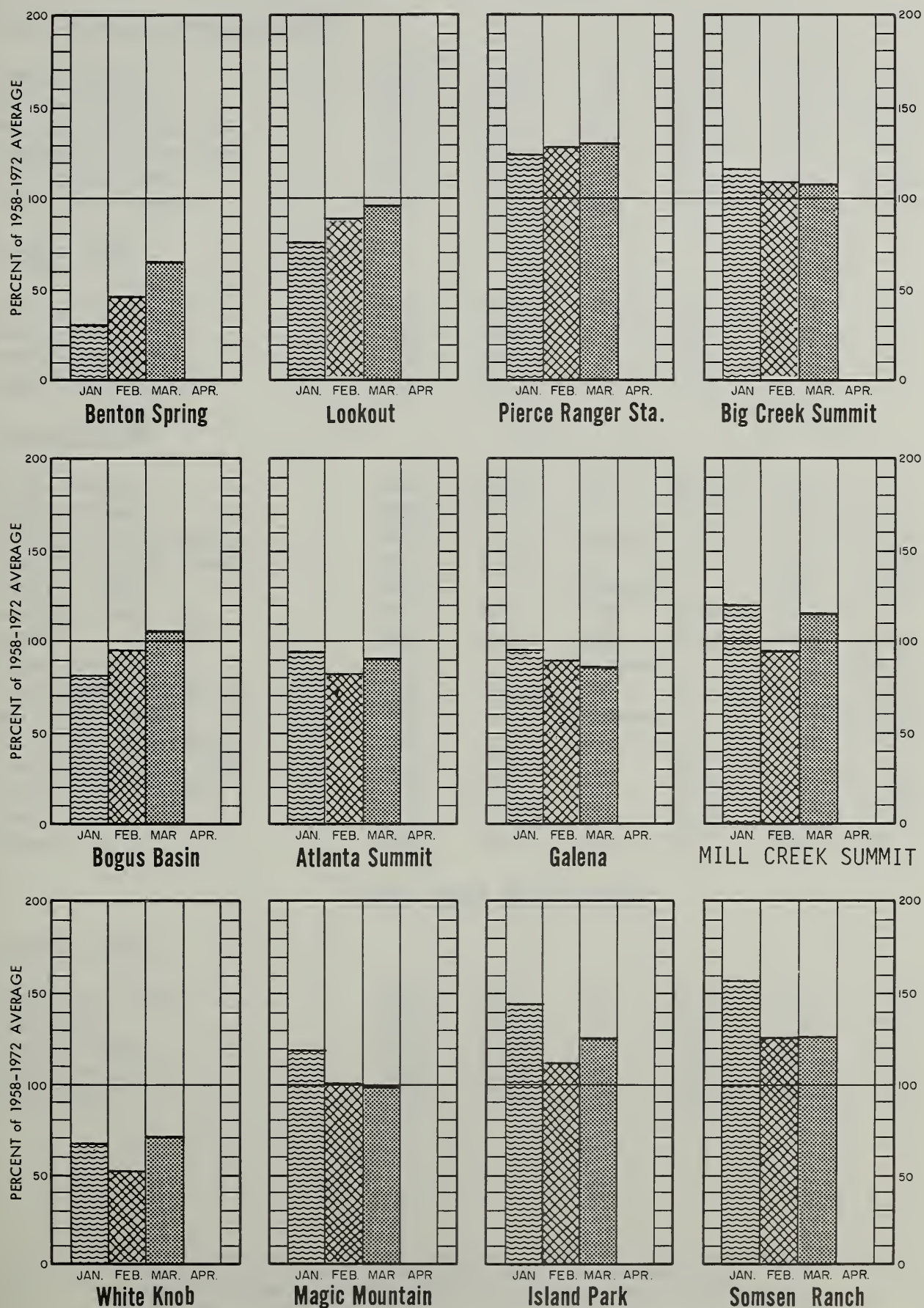


# SNOW WATER DEPTHS ACCUMULATION

## For Selected Snow Courses

As Compared To 1958-1972 15 Yr. Average

MARCH 1, 1976



# THE ANNALS OF THE ROYAL SOCIETY OF LONDON FOR THE YEAR 1881

<p>1. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>	<p>2. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>	<p>3. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>	<p>4. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>
<p>5. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>	<p>6. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>	<p>7. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>	<p>8. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>
<p>9. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>	<p>10. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>	<p>11. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>	<p>12. On the                      structure of                      the human                      eye, by                      J. D. Hooker.</p>

## SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average <sup>b</sup>

UPPER COLUMBIA RIVER BASINPEND OREILLE - PRIEST RIVER

Benton Meadow	2370	2/24	18	4.6	8.6	6.1
Benton Spring	4900	2/23	38	11.2	21.4	17.4
#Mosquito Ridge (A)	5110	3/2	107	33.8	36.0	34.7*
#Mosquito Ridge (SP)	5110	3/2	--	31.2	--	--
Schweitzer Bowl	4500	3/2	77	20.8	45.6	27.8*
Schweitzer Ridge	6100	3/2	118	40.0	60.2	39.9*

HAYDEN LAKE

Chilco Ridge	3650	2/25	33	9.2	11.6	--
Conie Ridge	3900	2/25	33	10.4	11.9	--
Corner Creek	3150	2/25	32	9.4	11.6	--
Sage Creek Saddle	4100	2/25	64	18.0	17.5	--

SPOKANE RIVER

Above Burke	4100	2/24	80	22.6	25.9	--
Copper Ridge	4800	2/26	71	25.3	28.7	25.7
#Forty-nine Meadows	4880		Delayed		25.8	28.4*
Fourth of July Summit	3200	2/27	39	11.4	14.6	7.3*
Granite Peak	6000		Delayed		34.4	37.7*
Kellogg Peak (A)	5560	3/2	90	28.8	29.8	--
Lookout	5120	2/24	102	31.2	30.4	32.4
#Lost Lake	6000		Delayed		45.6	51.3*
Lower Sands Creek	3400	2/26	59	17.8	18.5	17.5
Medicine Ridge	5920		Delayed		35.8	38.5*
Mosquito Ridge (A)	5110	3/2	107	33.8	36.0	34.7*
Mosquito Ridge (SP)	5110	3/2	--	31.2	--	--
Roland Summit (A)	5200	3/2	102	31.6	31.0	31.3*
Sherwin	3200	2/26	59	15.8	19.2	13.8*
Sunset (A)	5600	3/2	131	32.7	30.7	33.7*

LOWER SNAKE RIVER BASINPALOUSE RIVER

Crumarine Creek	3340	2/27	42	11.9	13.5	7.8*
East Twin	4050	2/27	47	14.2	14.9	11.1
Howard Creek	3500	2/27	29	8.0	10.2	4.5*
Moscow Mountain	4400	2/27	68	18.7	21.7	15.3
West Twin	4250	2/27	43	12.2	15.6	9.4

(b) 1958-72, 15 year period. #Not located directly on this drainage. \* Estimated 1958-72, 15 year Average. (A) Aerial observation Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.



## SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average <sup>b</sup>

## CLEARWATER RIVER

Cayuse Airstrip	3700		Delayed		13.6	11.7
Coolwater Mountain (SP)	6200	3/1	--	28.2	24.6	--
Cottonwood Butte	5140	2/27	55	14.7	12.7	--
Crater Meadows	6100		Delayed		37.8	40.9*
Crooked Fork	3600	2/26	58	15.5	16.1	12.9*
Elk Butte	5550		Delayed		33.3	35.0*
Fish Lake Airstrip	5000	3/5	133	38.8	35.3	37.3
Forty-nine Meadows	4880		Delayed		25.8	28.4*
Goat Lake	6600		Delayed		38.6	43.8*
#Granite Peak	6000		Delayed		34.4	37.7*
Hemlock Butte	5500		Delayed		42.8	42.8*
#Hoodoo Basin	Mont. 6000	3/2	152	48.6	46.9	46.1
#Hoodoo Basin (SP)	Mont. 6000	3/1	--	47.2	42.6	--
#Hoodoo Creek	Mont. 5900	3/2	143	45.5	43.5	43.2
Lolo Pass	5240	2/26	112	32.9	28.7	28.5
Lost Lake	6000		Delayed		45.6	51.3*
Lower Snowhaven	5300	3/1	75	22.1	18.7	--
#Medicine Ridge	5920		Delayed		35.8	38.5*
#Nez Perce Pass	Mont. 6575	2/22	60	20.3	21.1	14.3
Pierce Ranger Station	3170	3/1	44	13.4	15.7	10.3
Powell Ranger Station	3400	2/29	52	15.2	15.7	12.6*
Savage Pass	6170	2/29	97	30.9	24.2	20.5
Shanghai Summit	4600		Delayed		26.6	24.5*
Upper Snowhaven	5600	3/1	62	20.3	17.5	--

## SALMON RIVER

Big Creek Summit	6600	2/26	102	34.0	34.1	31.4
Borah (A)	8250	3/3	25	6.6	--	--
#Boulder Creek	5500	2/27	69	21.6	24.4	21.8*
Brundage Mountain	7560	2/26	123	43.2	40.2	42.2*
#Deadwood Summit	7000	3/4	120	41.6	39.9	40.4*
Doublespring Pass (A)	8400	3/3	41	8.1	--	--
#Galena Summit	8795	2/25	66	18.9	21.6	20.6
#Gibbons Pass	Mont. 7100	2/24	68	24.1	24.9	20.5
Leatherman Pass	9800	3/3	63	20.1	--	--
#Lemhi Pass	Mont. 7480	2/22	38	11.2	--	--
#Lemhi Ridge	Mont. 8100	2/22	44	13.6	--	--
Mill Creek Summit	8870	3/3	79	23.2	19.2	20.3*
Moose Creek	6200	3/1	66	18.6	17.2	15.2
Morgan Creek	7580	3/3	60	14.9	14.8	12.6*
Redfish Lake Flat	6570	3/1	54	12.9	--	--
#Rock Flat Summit	5200	2/26	62	17.2	17.3	16.2
#Secesh Summit	6520	2/27	97	32.3	34.2	--
#Squaw Meadow	5800	2/27	97	32.3	34.8	31.1*
Twin Peaks (A)	10300	3/3	89	26.2	22.1	--
Vienna Mine	8960	2/23	84	27.8	29.9	32.2
Williams Creek Summit	7800	2/27	51	14.8	11.4	11.0

(b) 1958-72, 15 year period. #Not located directly on this drainage. \* Estimated 1958-72, 15 year Average. (A) Aerial observation Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.



## SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average <sup>b</sup>

Lemhi River

Above Gilmore	8200	3/3	36	9.5	6.0	8.6*
Aspen-Hall Pass (A)	8110	3/3	48	12.8	9.1	7.7*
Copes Camp	7500	3/3	41	8.6	6.9	6.6*
Hall Creek	7560	3/3	29	6.0	4.5	4.8*
Meadow Lake	9100	3/3	60	17.2	14.1	17.1*
Schwartz Lake	8500	3/3	58	15.6	11.0	11.0*

(b) 1958-72, 15 year period. #Not located directly on this drainage. \* Estimated 1958-72, 15 year Average. (A) Aerial observation Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

## SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Elevation				Last Year	Average <sup>b</sup>

MIDDLE SNAKE RIVER BASIN - NORTHSIDELITTLE LOST RIVER

Fairview Guard Station	6750	2/25	22	4.0	4.5	4.5
Lost Garfield	6600	2/25	20	4.0	4.3	3.8
Moonshine	7450	2/25	36	8.6	9.0	9.8
Sawmill Canyon	6900	2/25	28	5.8	6.6	7.4
Wet Creek Summit	7600	2/26	36	7.0	7.6	10.9

BIG LOST RIVER

Bear Canyon	7920	2/23	38	8.8	12.2	16.3
Copper Basin	7650	2/23	18	5.2	7.2	8.6
Fishpole Lake	9350	2/23	41	11.0	14.0	--
Iron Bog	7650	2/27	45	9.2	10.4	13.8*
Leadbelt	6800	2/27	26	5.2	7.1	9.0*
#Leatherman Pass	9800	3/3	63	20.1	--	--
Lost-Wood Divide	7900	2/23	60	16.3	17.5	20.5
Stickney Mill	7500	2/23	30	6.3	8.6	8.4
White Knob	7700	3/1	30	5.9	9.0	8.4*

FISH CREEK

Iron Mine Creek	6370	3/1	39	9.2	10.2	9.7
Telfer Ranch	6000	3/1	31	7.0	8.9	7.7

LITTLE WOOD RIVER

#Bear Canyon	7920	2/23	38	8.8	12.2	16.3
Garfield Ranger Station	6554	2/26	34	7.4	10.0	10.0
Muldoon	6300	2/26	30	5.9	7.6	7.8
Swede Peak	7650	2/27	49	11.3	13.8	15.4

BIG WOOD RIVER

#Couch Summit	6950	3/2	60	16.0	16.8	16.9*
Dollarhide Summit	8620	2/23	59	17.8	19.9	20.7
Galena	7300	2/25	58	14.7	18.4	17.2
Galena Summit	8795	2/25	66	18.9	21.6	20.6
Graham Ranch	6200	2/25	41	9.6	12.2	12.4
#Lost-Wood Divide	7900	2/23	60	16.3	17.5	20.5
Mascot Mine	7900	2/23	38	9.5	9.7	12.1
Mount Baldy	9000	2/27	57	15.2	17.0	18.0
Soldier Ranger Station	6100	3/2	40	10.7	12.0	11.2
#Vienna Mine	8960	2/23	84	27.8	29.9	32.2

(b) 1958-72, 15 year period. #Not located directly on this drainage. \* Estimated 1958-72, 15 year Average. (A) Aerial observation. W Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

## SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average <sup>b</sup>

BOISE RIVER

Atlanta Summit (SP)	7500	3/1	--	24.2	27.5	27.2*
Bad Bear	5500	3/2	57	17.0	15.0	13.1*
#Bogus Basin	6120	3/3	65	21.7	22.0	20.7
Bogus Basin Road	5360	3/3	23	8.2	7.4	5.4
Couch Summit	6950	3/2	60	16.0	16.8	16.9*
Deadman Gulch	5600	2/28	54	17.0	--	14.0*
#Dollarhide Summit	8620	2/23	59	17.8	19.9	20.7
Graham Guard Station	5690	2/27	58	16.8	18.4	--
Jackson Peak	7000	2/27	86	28.2	27.8	27.2*
#Little Camas Flat	4950	3/2	30	8.9	--	--
Moore's Creek Summit	6100	3/2	104	35.8	29.5	28.5
Prairie	4900	2/26	33	9.5	9.3	5.3
#Soldier Ranger Station	6100	3/2	40	10.7	12.0	11.2
Trinity Mountain	7780	2/27	96	33.5	38.7	37.8
#Vienna Mine	8960	2/23	84	27.8	29.9	32.2

PAYETTE RIVER

#Big Creek Summit	6600	2/26	102	34.0	34.1	31.4
Bogus Basin	6120	3/3	65	21.7	22.0	20.7
#Brundage Mountain	7560	2/26	123	43.2	40.2	42.2*
Crawford Ranger Station	4800	2/26	24	7.4	10.0	7.7
#Deadman Gulch	5600	2/28	54	17.0	--	14.0*
Deadwood Airstrip	5440	2/27	51	14.1	16.7	14.5
Deadwood Summit	7000	3/4	120	41.6	39.9	40.4*
High Valley Summit	5170	2/28	49	14.8	14.4	10.3*
#Jackson Peak	7000	2/27	86	28.2	27.8	27.2*
Lake Fork	6000	2/27	57	17.2	18.3	14.1*
Rock Flat Summit	5200	2/26	62	17.2	17.3	16.2
Secesh Summit	6520	2/27	97	32.3	34.2	--
Squaw Meadow	5800	2/27	97	32.3	34.8	31.1*
Tripod Summit	5200	2/28	66	21.4	20.5	15.8*

WEISER RIVER

Boulder Creek	5500	2/27	69	21.6	24.4	21.8*
Placer Creek	6000	3/1	59	14.8	17.7	15.9*

MANN CREEK

Mann Creek	6080	2/27	61	17.5	24.3	--
Robinson Creek Ridge	6220	2/27	44	12.6	23.2	--
Sturgill Ridge	6800	2/27	69	19.8	26.9	--
Thorson Cabin	5320	2/27	45	12.9	16.0	--

(b) 1958-72, 15 year period. #Not located directly on this drainage. \* Estimated 1958-72, 15 year Average. (A) Aerial observation Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.



**SNOW**

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average <sup>b</sup>

MIDDLE SNAKE RIVER - SOUTHSIDERAFT RIVER

Boy Scout Camp		7760	2/26	37	11.0	11.8	13.2*
Clear Creek Meadows	Utah	9050	2/26	45	14.4	21.8	18.2*
George Peak		9000	2/26	56	18.8	32.2	--
Howell Canyon		8000	2/26	66	23.1	24.3	22.2
One Mile Summit	Utah	7330	2/26	17	4.0	6.9	6.8*
Sheep Hollow		6200	2/26	21	5.9	5.3	5.6*
Sublett		6000	2/26	38	10.3	12.5	9.9
Summit Springs		6400	2/26	37	11.0	12.6	9.7*

GOOSE CREEK

Badger Gulch		6660	2/26	37	10.9	12.6	10.1
Bostetter Ranger Station		7500	2/26	56	17.2	17.8	17.5
Vi Pont		7670	2/26	47	15.5	13.5	12.7*

SALMON FALLS CREEK

#Bear Creek	Nev.	7800	3/4	62	18.8	24.3	17.3
Cedar Creek		7000	3/2	35	8.5	10.9	8.8
Deadline		6900	2/27	56	19.4	21.3	19.9
#Fox Creek	Nev.	6800	3/4	37	10.4	14.6	9.3
Goat Creek	Nev.	8800	3/4	53	14.7	16.4	16.0
#Hummingbird Springs	Nev.	8945	3/4	70	19.4	20.0	19.5
Magic Mountain		6700	2/27	52	16.0	18.6	16.2
#Pole Creek R. S.	Nev.	8330	3/4	62	18.8	21.4	16.8
Shoshone Basin		5740	2/27	23	7.8	8.4	4.2
Wilson Creek		7500	3/4	34	8.8	12.5	11.4*

BRUNEAU RIVER

Bear Creek	Nev.	7800	3/4	62	18.8	24.3	17.3
Fox Creek	Nev.	6800	3/4	37	10.4	14.6	9.3
Hummingbird Springs	Nev.	8945	3/4	70	19.4	20.0	19.5
Pole Creek Rgr. Sta.	Nev.	8330	3/4	62	18.8	21.4	16.8
#Seventy-six Creek	Nev.	7100	3/4	42	12.2	15.4	10.0*

OWYHEE RIVER

Antelope Ridge		5900	3/3	23	5.7	--	6.1*
Battle Creek (A)		5700	2/24	12	3.4	6.5	2.9
#Bear Creek	Nev.	7800	3/4	62	18.8	24.3	17.3
Bull Basin (A)		5600	2/24	6	1.7	3.7	1.1*
#Fox Creek	Nev.	6800	3/4	37	10.4	14.6	9.3
Hyde Pasture (A)		5800	2/24	12	3.4	10.5	4.9
Red Canyon (A)		6650	2/24	20	5.6	11.2	5.9*

(b) 1958-72, 15 year period. #Not located directly on this drainage. \* Estimated 1958-72, 15 year Average. (A) Aerial observation Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.



## SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average <sup>b</sup>
#Seventy-six Creek	Nev. 7100	3/4	42	12.2	15.4	10.0*
Silver City	6400	3/2	60	13.2	17.2	13.8
South Mountain	6340	2/28	38	10.8	14.0	11.3
Succor Creek (A)	6100	2/24	21	5.9	8.4	5.4*
Triangle (A)	5150	2/24	1	0.3	2.5	0.6
Vaught Ranch (A)	5950	2/24	13	3.6	8.4	3.3*
War Eagle (A)	7700	2/24	69	19.3	18.6	22.1*

(b) 1958-72, 15 year period. #Not located directly on this drainage. \* Estimated 1958-72, 15 year Average. (A) Aerial observation Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

## SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average <sup>b</sup>

UPPER SNAKE RIVER BASINCAMAS-BEAVER CREEKS

Camp Creek	6800	2/26	28	6.9	10.9	9.0
Kilgore	6200	2/27	34	9.1	12.1	10.1

HENRYS FORK RIVER

Big Springs	6400	2/26	64	21.5	18.0	18.6
Black Canyon	7850	2/27	96	36.0	27.8	29.4*
Black Moose	8125	2/27	99	39.4	33.8	36.2*
Grassy Lake	Wyo. 7230	2/25	110	40.4	29.8	30.1
Island Park	6315	2/26	58	18.4	15.6	14.7
Latham Springs	7630	2/27	93	35.0	27.8	27.9*
Lucky Dog	6900	2/27	67	23.6	23.6	21.6*
Sawtell Mountain	8720	2/26	79	29.0	25.4	30.4*
Targhee Pass	7000	2/26	50	16.0	10.9	13.5*
Valley View	6500	2/26	53	17.6	12.8	15.4
White Elephant	7700	2/26	68	22.9	19.7	--

TETON RIVER

Darby Canyon	Wyo. 8250	3/3	80	26.6	18.5	--
Freds Mountain	Wyo. 8150	3/3	91	28.7	18.2	--
Garns Mountain	8300	3/3	128	44.8	33.2	--
Indian Meadows	Wyo. 8240	3/3	116	41.7	30.4	--
Jackpine Creek	Wyo. 7350	3/3	79	27.0	20.0	--
McRenolds Reservoir	6800	3/3	73	23.3	19.2	--
Miles Creek	Wyo. 7300	3/3	54	15.3	11.5	--
Phillips Bench	Wyo. 8200	2/26	80	28.6	26.2	--
Pine Creek Pass	6750	3/3	73	21.7	16.6	15.4*
State Line	6650	3/3	65	18.1	14.1	12.8
Teton Pass W.S.	Wyo. 8400	2/24	76	27.8	20.6	--

WILLOW CREEK

Aspen Grove	6600	2/26	43	13.5	11.2	10.3*
Birch Creek	6800	2/26	38	11.7	12.5	14.3*
Blue Ridge	6800	2/27	51	17.2	17.5	--
Bone	6200	2/26	26	8.1	8.6	7.5*
Brockman Station	6430	2/26	35	11.0	10.5	--
Hell Creek	7100	2/26	47	15.5	14.3	--
Mud Creek	7150	2/26	40	12.7	12.6	--
Sheep Mountain	6510	2/26	47	14.9	11.0	12.6*
Tex Creek	6700	2/26	39	12.1	10.0	8.5*

(b) 1958-72, 15 year period. #Not located directly on this drainage. \* Estimated 1958-72, 15 year Average. (A) Aerial observation #Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

## SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average <sup>b</sup>

SAND CREEK

Henry Creek	5650	2/27	15	5.1	6.3	2.4*
-------------	------	------	----	-----	-----	------

BLACKFOOT RIVER

Austin Bros. Ranch	6400	2/26	32	9.3	9.1	7.9
Slug Creek Divide	7225	2/25	54	16.0	15.3	14.7*
Somsen Ranch	7000	2/26	48	15.0	13.3	12.0
Ten Mile Pass	6250	2/26	28	8.7	5.4	--

PORTNEUF RIVER

Dempsey Creek	6280	2/28	44	13.8	14.0	10.6
Lower Pebble	5800	2/28	47	16.2	13.4	12.1*
Mink Creek	6300	2/26	54	17.4	20.5	15.0
Pebble Creek	6550	2/28	46	15.4	15.4	14.5

(b) 1958-72, 15 year period. #Not located directly on this drainage. \* Estimated 1958-72, 15 year Average. (A) Aerial observation Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.



## SNOW

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average <sup>6</sup>

GREAT BASINBEAR RIVER

Emigrant Summit	7350	2/26	70	21.3	22.6	21.8*
Emigration Canyon	6500	2/26	40	11.4	10.5	9.7*

Montpelier Creek

Giveout	6840	2/25	46	12.2	12.0	11.0*
Little Beaver	6970	2/25	50	14.7	14.5	14.0*
Montpelier Creek	6570	2/25	31	8.1	7.8	7.5*
Whiskey Flat	6985	2/25	30	8.0	7.4	8.9*

Mink Creek

Christensen Ranch	5600	2/25	42	11.9	10.1	7.7
Dry Basin	7900	2/25	79	25.1	25.1	25.3*
#Emigrant Summit	7350	2/26	70	21.3	22.6	21.8*
Horseshoe Basin	8000	2/25	66	21.8	22.1	23.2*
Liberty Spring	8600	2/25	94	33.0	33.4	33.8*
Strawberry Creek	5800	2/26	41	11.6	11.5	9.6
Strawberry Mink Divide	6800	2/25	64	19.8	21.6	18.6

Cub River

Cub River R. S.	5400	2/25	40	12.3	11.0	8.0
#Franklin Basin	8000	2/25	61	20.5	22.9	--
Willow Flat	6100	2/25	53	17.2	17.1	13.7
Worm Creek	6660	2/25	57	17.3	18.8	--

MALAD RIVER

Cliff Canyon	7200	2/25	28	8.0	10.7	--
Daniels Creek	6400	2/25	28	7.7	6.5	--
Dry Creek Flat	6480	2/25	32	10.4	10.3	6.6
Lower Elkhorn	7000	2/25	40	12.9	15.1	12.4*
Oxford Mountain	6800	2/25	38	11.5	11.2	9.4
Upper Elkhorn	7100	2/25	56	17.7	16.8	16.0*

(b) 1958-72, 15 year period. #Not located directly on this drainage. \* Estimated 1958-72, 15 year Average. (A) Aerial observation Water content estimated. (SP) Pressure Pillow snow-water equivalent. (R) Radioactive Gage snow-water equivalent.

## SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
		DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
NAME	ELEVATION						
<u>SPOKANE RIVER</u>							
Fourth of July Summit	3100	48	11.6	3/1	12.2	7.8	10.2
Lookout	5250	48	11.0	2/24	9.8	7.4	8.6
<u>SALMON RIVER</u>							
Mill Creek Summit	8870	48	9.4	3/3	4.2	--	4.0
<u>Lemhi River</u>							
Above Gilmore	8200	60	5.4	3/3	3.5	Frozen	4.2
Meadow Lake	9100	48	4.4	3/3	2.2	--	--
<u>LITTLE LOST RIVER</u>							
Fairview Guard Station	5850	42	7.6	2/25	7.8	--	8.5
<u>BIG WOOD RIVER</u>							
Galena	7300	48	10.1	2/25	6.9	5.4	--
Galena Summit	8795	48	5.8	2/25	1.6	Frozen	1.8
<u>BOISE RIVER</u>							
Bogus Basin Road	4830	48	7.1	2/27	5.8	--	--
<u>RAFT RIVER</u>							
Howell Canyon	8000	48	11.5	2/26	9.1	--	9.1
Sheep Hollow	6200	36	7.5	2/26	6.9	--	6.8
<u>GOOSE CREEK</u>							
Badger Gulch	6660	36	7.0	2/26	6.6	--	5.1
<u>SALMON FALLS CREEK</u>							
Deadline	6900	36	7.4	2/27	6.4	5.7	6.8
Patrick Ranch	5720	36	7.7	3/2	7.4	6.1	5.1
Pole Creek R. S.	8330	48	9.7	3/4	8.1	6.9	8.1
<u>BRUNEAU RIVER</u>							
Bear Creek	7800	72	16.9	3/4	10.8	9.0	11.1
<u>HENRYS FORK RIVER</u>							
Island Park	6315	48	9.9	2/26	8.5	--	10.6

## SOIL MOISTURE

STATION		PROFILE (Inches)		SOIL MOISTURE (Inches)			
NAME	ELEVATION	DEPTH	CAPACITY	DATE	THIS YEAR	LAST YEAR	2 YEARS AGO
<u>BEAR RIVER</u>							
Emigrant Summit	7350	36	8.2	2/26	5.7	--	7.4
Strawberry Creek	5800	48	12.7	2/26	7.6	--	11.0
<u>Montpelier Creek</u>							
Giveout Pass	7025	36	9.4	2/25	4.6	--	7.6
Jenson Ranch	6580	48	18.7	2/26	16.2	--	11.8



# Agencies and Organizations Cooperating in Idaho Snow Surveys

## GOVERNMENT AGENCIES

### States:

Idaho Department of Water Resources  
State of Idaho Department of Fish and Game  
University of Idaho  
Idaho State University  
Montana Agricultural Experiment Station  
Montana State Water Conservation Board  
Montana Cooperative Snow Surveys  
Nevada Cooperative Snow Surveys  
Oregon Agricultural Experiment Station  
Oregon Cooperative Snow Surveys  
Oregon State Engineer and Corps of  
State Watermasters  
Utah Cooperative Snow Surveys  
Wyoming Cooperative Snow Surveys

### Federal:

U. S. Army Engineers  
U. S. Department of Agriculture  
Forest Service  
Agricultural Research Service  
Statistical Reporting Service  
U. S. Department of Commerce  
NOAA, National Weather Service

U. S. Department of the Interior  
Bonneville Power Administration  
Bureau of Reclamation  
Fish and Wildlife Service  
Water Resources Division, Geological Survey  
National Park Service  
Bureau of Land Management

## PUBLIC UTILITIES

The Montana Power Company  
Washington Water Power Company  
Idaho Power Company  
Utah Power and Light Company

## ORGANIZED PUBLIC AGENCIES

Big Lost River Irrigation District  
Blaine Soil Conservation District  
Boise Project Board of Control  
Idaho Water District #01  
Little Wood River Irrigation District  
Mann Creek Irrigation District  
Salmon Falls Creek Irrigation Company  
Twin Falls Soil Conservation District  
Big Wood Irrigation Company  
Owyhee Project - North & South Board of Control

ROOM 345  
304 N. 8TH ST.  
BOISE, IDAHO 83702

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID  
U. S. DEPARTMENT OF  
AGRICULTURE  
AGR-101



**FIRST CLASS MAIL**

FEDERAL - STATE - PRIVATE  
**COOPERATIVE SNOW SURVEYS**

Furnishes the basic data  
necessary for forecasting  
water supply for irrigation,  
domestic and municipal water  
supply, hydro-electric power  
generation, navigation,  
mining and industry

*"The Conservation of Water begins  
with the Snow Survey"*

USDA NATIONAL AGRICULTURAL  
LIBRARY  
CURRENT SERIAL RECORD  
BELTSVILLE, MARYLAND 20705